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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,273	09/24/2003	Chin-Hsien Yen	JCLA9302	6552
23900	7590	04/20/2005	EXAMINER	
J C PATENTS, INC. 4 VENTURE, SUITE 250 IRVINE, CA 92618			ENGLUND, TERRY LEE	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,273

Applicant(s)

YEN, CHIN-HSIEN

Examiner

Terry L. England

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 is/are allowed.
- 6) ☒ Claim(s) 2-5 and 7 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment/Drawings

The amendment and drawings submitted on Feb 1, 2005 have been reviewed and considered with the following results:

Although the drawing change to Fig. 1A, and a change to the disclosure with respect to Fig. 4, overcame the objections with respect to Figs. 1A and 4 lacking the reference signs "10" and "440b", respectively, the other drawing objections described on page 2 of the previous Office Action were not addressed/corrected. Therefore, the "10"/"440b" objections have been withdrawn, but the other objections are maintained. These remaining objections are repeated later under the appropriate section.

The amended paragraphs overcame the objections to the disclosure as described in the previous Office Action. Those objections have now been withdrawn. However, two inadvertent oversights (e.g. not described in the previous Office Action) were noted when the disclosure and amended sections were reconsidered. These are described later under the appropriate section.

The amended claims overcame the objections to claims 1-7 as described on pages 3-4 of the previous Office Action. However, some of the amended sections created new concerns, and a careful review of the claims identified other inadvertent oversights (e.g. lack of consistent labeling) that had been left out of the previous Office Action. These concerns are described later under the Claim Objections' section.

All but one of the previous Office Action's rejections under 35 U.S.C. 112 were addressed/corrected by the amended claims. The rejection of claim 7, with respect to a "fifth" PMOS transistor implying first-fourth transistors, has been maintained. This rejection is

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described later, with suggestions on overcoming the problem(s). The other 35 U.S.C. 112 rejections described in the previous Office Action have now been withdrawn. Also, amended claims 2 and 4 each have a new rejection related to an amended change. These rejections are also described later.

Drawings

The drawings remain objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 132, 132a, 132b, 134, 134a, 134b, and 140-152 with respect to Fig. 1B; 32, 302, 304, 308, 322, 330, and 332 with respect to Fig. 3; and 502-508, 512-518, 530, and 540 with respect to Fig. 5. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: Page 1, last line of paragraph 0001 should have --doubler-- instead of "double" to correct a typo. On line 13 of

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amended paragraph 0042, "586" should be --568-- to correct another typo. Appropriate corrections are required.

Claim Objections

Claims 2-7 are objected to because of the following informalities: For consistent labeling, it is suggested --terminal,-- be added after the first occurrence of "drain" on both of lines 4 and 8 of claim 2 (e.g. see "drain terminal" recited later on the same lines); and "gate terminal" on lines 10 and 11 of the same claim should be changed to --gate-- to correspond to "a gate" recited on lines 3 and 7. To minimize possible confusion with respect to claim 2 possibly not reciting all the intended limitations, the term --and-- should be added after "voltage;" on line 6 to indicate the claim's last limitation is being recited next. Since claim 1 does not recite that the first/second control signal generation units comprise anything, it is suggested "further comprising" on line 2 of each of claims 3 and 5 be changed to --comprises--. For the same type of reasoning as applied to claim 2 above, the following changes are also suggested: 1) claim 3: add --terminal,-- after the first occurrence of "drain" on both of lines 4 and 8; and add --and-- after "ground;" on line 6; 2) claim 4: add --terminal,-- after the first occurrence of "drain" on both of lines 4 and 9; add --the-- after "and" on line 6 to relate "source terminal" back to line 4's "source terminal"; add --and-- after "ground;" on line 7; and change each occurrence of "gate terminal" on lines 12-13 to --gate--; and 3) claim 5: add --terminal,-- after the first occurrence of "drain" on both of lines 4 and 9; add --and-- after "ground;" on line 7; and change "fourth" on each of lines 11 and 12 to --first-- to address inadvertent oversights (i.e. the other occurrences of "fourth" within the claim had been changed by the applicant's amendment). Since the "voltage doubler" had not been previously recited within claim 6's chain of dependency, it is suggested

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that either a comma be added after “doubler” on line 1, or “further” be deleted from line 2 of that claim. Otherwise, the preamble’s wording could imply the doubler had been previously described as comprising something else. For consistent labeling, and/or to improve word flow, the following changes to claim 7 are suggested: 1) add --terminal, and-- after the first occurrence of “drain” on line 4; and 2) add --terminal,-- after “drain” on each of lines 9, 14, and 20.

Dependent claims carry over any objection(s) from any claim(s) upon which they depend. Appropriate corrections are required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 remains rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The use of “fifth” PMOS transistor within claim 7 implies first-fourth PMOS transistors that are not described within the claim’s chain of dependency. Therefore, it is suggested all transistor related occurrences of “fifth” (e.g. see each of lines 3-6, 17, and 28) “sixth” (e.g. see each of lines 8-11, and 23), “seventh” (e.g. see each of lines 13-17), and “eighth” (e.g. see each of lines 19-23) be changed to --first--, --second--, --third--, and --fourth--, respectively. [Note: Line 19 “an eighth” should be changed to --a fourth-- for proper syntax.]

Claims 2-5 are now rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Since claim 1 recites “a circuit” twice (i.e. see lines 11-12 and 20), the phrase “a part of the circuit” (claim 2, line 12) and “a part of the circuits” (claim 14, line 14),

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which circuit(s) is (are) being referred to is indefinite. Therefore, it is believed the phrase in claim 2 should be changed to --a part of the circuit inside the first output voltage generator unit--, and the phrase in claim 4 should be changed to --a part of the circuit inside the second output voltage generating unit-- to clearly identify the recited transistors with their own respective "circuit." Claims 3 and 4 carry over the rejections of claims 2 and 4, respectively.

Allowable Subject Matter

Claim 1 is allowed. There is no motivation to modify or combine any prior art reference(s) to ensure a charge pump comprises the four distinct units (i.e. first/second control signal generation units, and first/second output voltage generation units), first/second capacitors, and the two clocking signals, with all their respective relationships as recited within claim 1. For example, all four generation units receive the input voltage; the second control signal generation unit and the first capacitor both receive the clocking signal; and the first control signal generation unit and the second capacitor both receive the phase inverted signal.

Claim 6 is only objected to for the reasoning described.

Also, Claims 2-5, and 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. These claims all depend upon allowed claim 1.

THIS ACTION IS MADE FINAL. The applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication, or previous communications, from the examiner should be directed to Terry L. Englund whose telephone number is (571) 272-1743. The examiner can normally be reached Monday-Friday from 7 AM to 3 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (571) 272-1740.

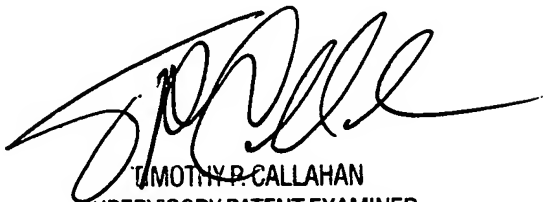
The new central official fax number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1562.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TLE

Terry L. Englund
8 April 2005


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Replacement sheet

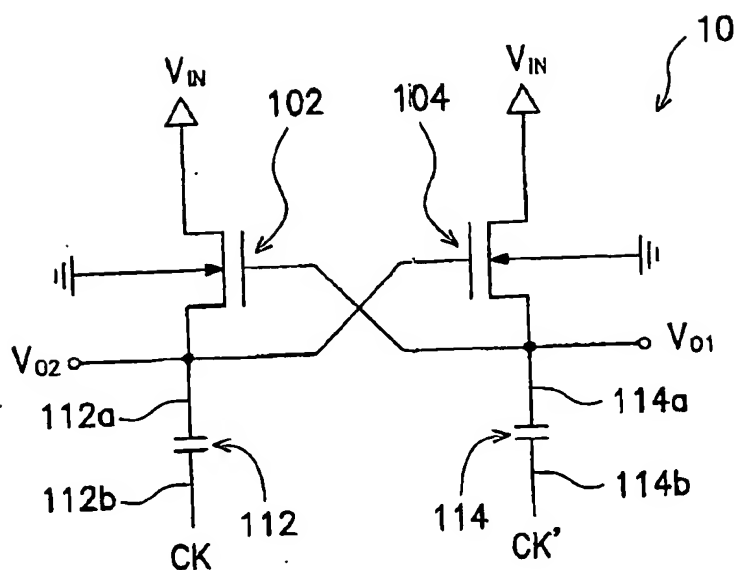
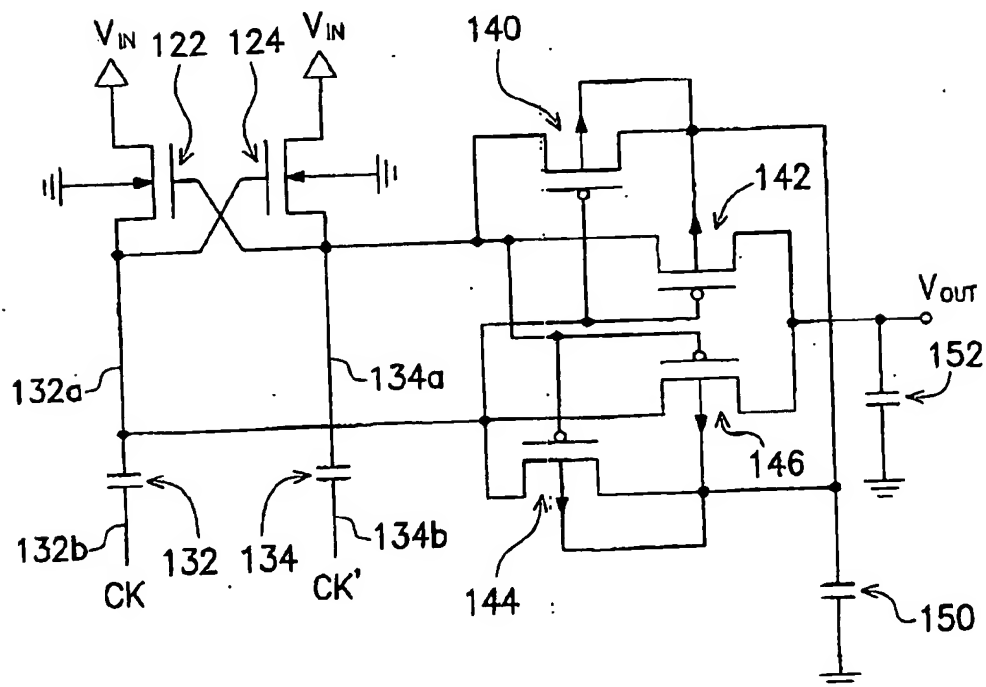

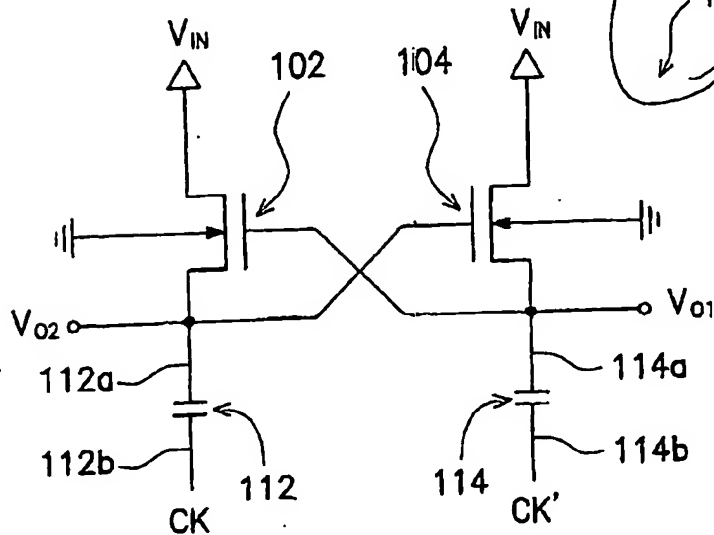


FIG. 1A (PRIOR ART)





Approved
4.8.05
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NOT APPROVED
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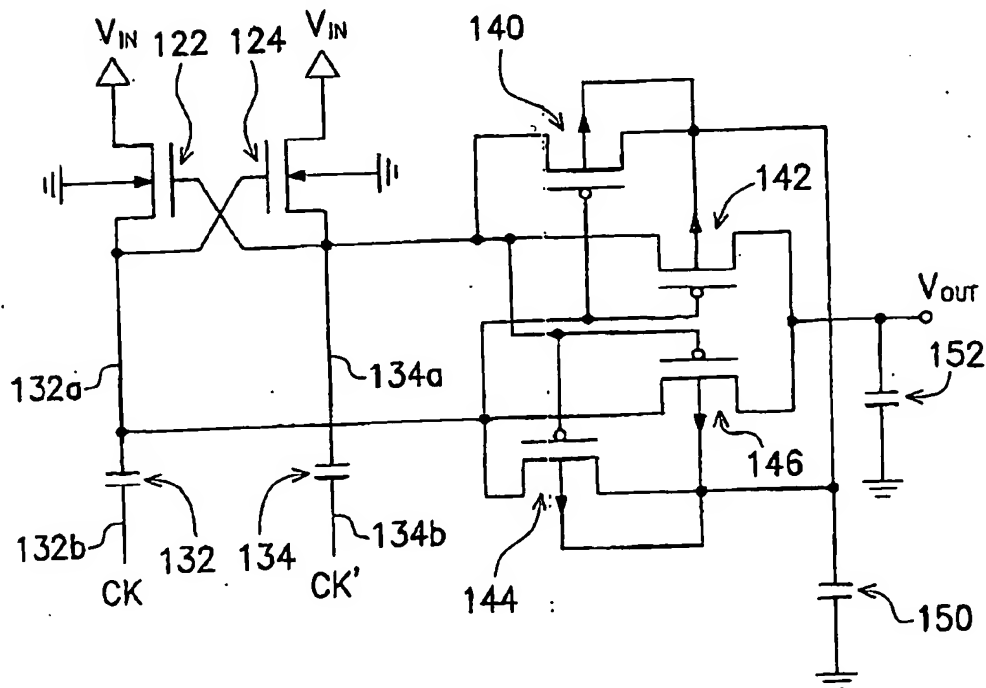


FIG. 1B (PRIOR ART)